17.0 Slick Rock, Colorado, Disposal Site

17.1 Compliance Summary

The Slick Rock Disposal Site, inspected on July 10, 2003, was in excellent condition. A damaged perimeter sign was replaced. Vegetation in the reclaimed spoils pile area west of the site is sparse due to continued drought conditions. Several tamarisk plants were cut and treated with herbicide at the time of the inspection. Infestations of noxious weeds on site will continue to be treated with herbicide. Runoff from a severe rainstorm in fall 2003 washed out the site entrance road; repairs will be completed in 2004. No need for a follow-up or contingency inspection was identified.

17.2 Compliance Requirements

Requirements for the long-term surveillance and maintenance of the Slick Rock, Colorado, Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I disposal site are specified in the *Long-Term Surveillance Plan* [LTSP] *for the Burro Canyon Disposal Cell, Slick Rock, Colorado* (DOE/AL/62350−236, Rev. 0, U.S. Department of Energy [DOE], Albuquerque Operations Office, May 1998) and in procedures established by the DOE office at Grand Junction to comply with requirements of Title 10 *Code of Federal Regulations* Part 40.27 (10 CFR 40.27). These requirements are listed in Table 17−1.

Table 17−1. License Requirements for the Slick Rock, Colorado, Disposal Site

Requirement	Long-Term Surveillance Plan	This Report
Annual Inspection and Report	Sections 3.0 and 6.2	Section 17.3.1
Follow-up or Contingency Inspections	Section 3.4	Section 17.3.2
Routine Maintenance and Repairs	Section 4.0	Section 17.3.3
Ground Water Monitoring	Sections 2.5 and 2.6	Section 17.3.4
Corrective Action	Section 5.0	Section 17.3.5

17.3 Compliance Review

17.3.1 Annual Inspection and Report

The site, northeast of Slick Rock, Colorado, was inspected on July 10, 2003. Results of the inspection are described below. Features and photograph locations (PLs) mentioned in this report are shown on Figure 17−1. Numbers in the left margin of this report refer to items summarized in the Executive Summary table.

17.3.1.1 Specific Site Surveillance Features

Access Road, Fence, Gate, and Signs—Site access is by an improved gravel county road. The road was in excellent condition at the time of the inspection. A severe rainstorm in fall 2003 washed out the site entrance road where it crosses the county road borrow ditch. Downstream of the entrance road the borrow ditch was filled with sediment. DOE will repair the entrance road and regrade the borrow ditch in 2004.

17A

The wire entrance gate was secured with a DOE lock. A wire stock fence surrounds the site and a reclaimed spoils pile area west of the site; it does not follow the DOE property boundary. The top and bottom strands are smooth wire to allow wildlife to pass over and under, and the middle two strands are barbed wire. No damages to the fence or gate were observed.

The entrance sign inside the stock fence just east of the entrance gate was in excellent condition. Thirty-two perimeter signs, attached to steel posts set in concrete, are spaced at approximately 200-foot intervals around the site. Perimeter sign P30 was heavily damaged by bullet holes and was replaced. Two other signs have slight damage but are legible. All other signs were in excellent condition.

17B

Site Markers and Monuments—The site has two site markers, three survey monuments, and six boundary monuments. All markers and monuments were undisturbed and in excellent condition.

Monitor Wells—Ground water monitoring is not required at the disposal site. All monitor wells (7) and standpipes (2) were decommissioned in 2001 and 2002, respectively. In fall 2002, after removal of the standpipes from the cell, DOE initiated a 1-year period of radon monitoring at the site to ensure that the radon barrier was not compromised. Preliminary results based on measurements through three quarters of the year confirm that the radon levels at the cell were indistinguishable from background levels.

17C

17.3.1.2 Transects

To ensure a thorough and efficient inspection, the site was divided into three areas referred to as transects: (1) the disposal cell; (2) the area between the disposal cell and the site boundary; and (3) the outlying area.

Disposal Cell—The disposal cell, side slopes, key trench, and apron are armored with rounded cobble- and pebble-sized rock. The rock was in excellent condition. No evidence of settling, slumping, or erosion was observed on any of the rock-covered surfaces of the disposal cell.

Area Between the Disposal Cell and the Site Boundary—The area around the disposal cell includes a retention pond and graded and reseeded areas. Surface drainage from the disposal cell flows south into the retention pond, which is constructed in a channel tributary to Joe Davis Canyon. An outflow channel below the pond is lined with rounded cobblestones for a short distance. The pond, which was dry at the time of the inspection, and outflow channel were in excellent condition.

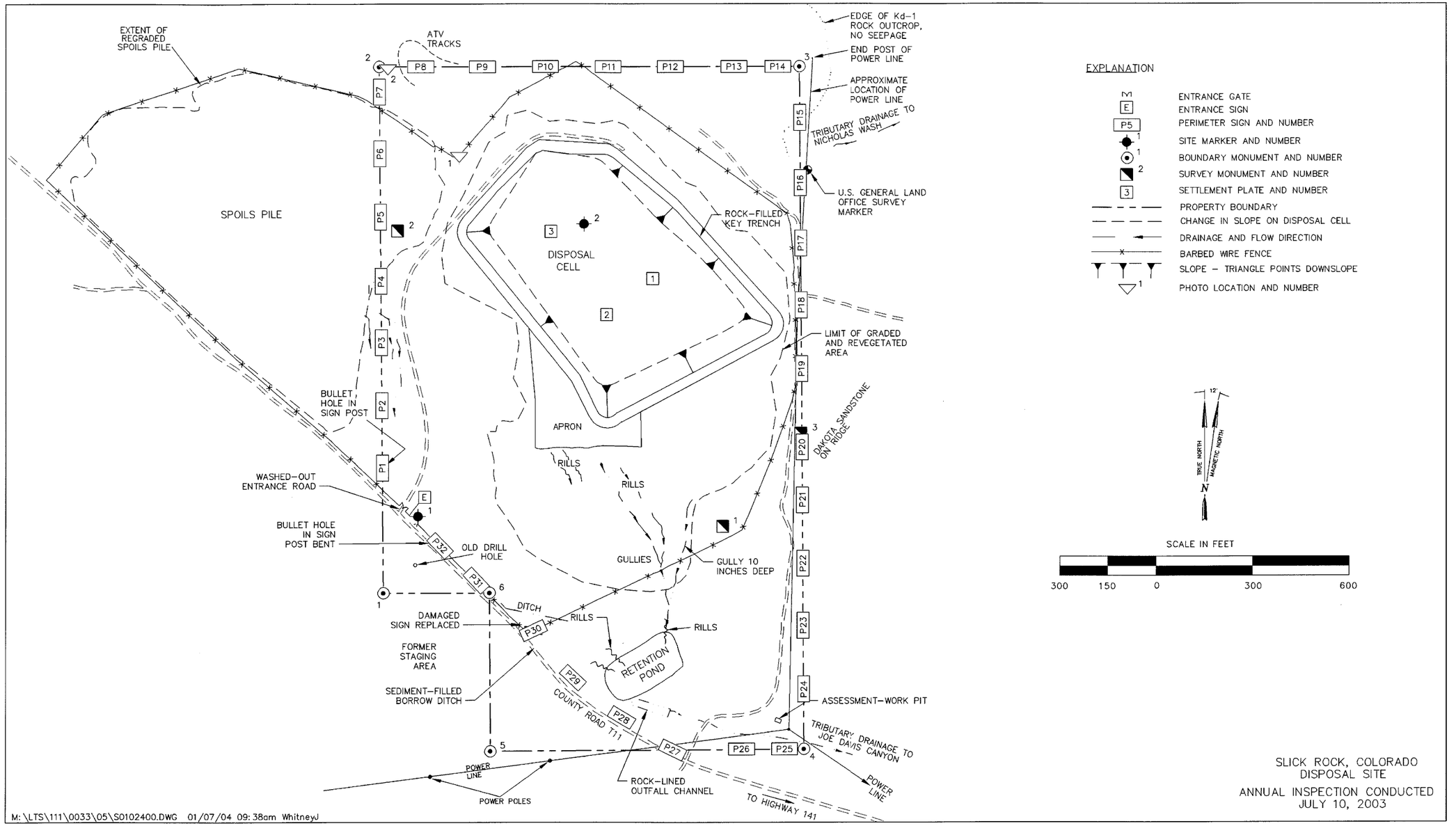

Figure 17–1. 2003 Annual Compliance Drawing for the Slick Rock, Colorado, Disposal Site

Reclaimed disturbed areas around the disposal cell are primarily on the western, southern, and northeastern sides of the cell. These areas were graded and seeded in 1996 and seeded again in March 1999. These areas have successfully revegetated.

Some rills and gullies are present along the east side of the property and between the cell apron and retention pond. These erosional features are stabilizing but will continue to be monitored.

The Kd-1 sandstone unit, which outcrops near the northeast corner of the property, was identified in the LTSP as a potential pathway of lateral migration of transient drainage from the disposal cell if the water level in the cell reached a critical elevation (the bottom of the Kd-1 sandstone unit). The water level continued to drop below the critical elevation and the standpipes were removed in accordance with the LTSP. There was no evidence of moist soil, mineralization, or phreatophyte vegetation at the outcrop that would indicate that drainage has occurred through this unit. Because the water in the cell is below the Kd-1 sandstone unit and, therefore, cannot drain from the cell through the unit, monitoring of the outcrop is no longer necessary as stipulated in the LTSP.

A few small tamarisk plants were found south of the cell and in the retention pond, and all were cut and treated with herbicide. The noxious weeds Russian knapweed and halogeton also are present at the site and have been sprayed on several occasions. Infestations of these weeds were found at numerous locations on the site during the 2003 inspection. Herbicide treatments by the county weed control officer will continue.

17D

Outlying Area—During construction of the disposal cell, material excavated from the site was placed in a 60-foot-high spoils pile on the west side of the site. A right-of-way permit, granted to DOE by the U.S. Bureau of Land Management (BLM), encompasses the spoils pile and the former staging area adjacent to the site entrance. The permit allowed DOE temporary access to cross and use BLM-managed land for construction activities. The permit requires DOE to successfully revegetate these areas.

In September 2001, DOE regraded the slopes of the spoils pile to reduce and reshape them to more natural contours to reduce erosion, and seeded the slopes. No significant erosional features have developed in the spoils pile area. DOE also ripped and reseeded the surface of the former staging area. Due to continued drought conditions in the region, the vegetative cover had not significantly improved over the previous year and continues to be very sparse in both areas (PL−1).

The natural, undisturbed areas outside the disposal site support grass and scattered piñon and juniper trees. The primary land use is grazing. Steep hillsides north and northeast of the site slope eastward into Nicholas Wash. Areas north and northeast of the site are routinely used for recreational purposes (e.g., hunting, four-wheeling, firewood cutting, etc.). Tracks from an all-terrain vehicle were observed on the northwest corner of the property (PL–2). Although perimeter signs are clearly visible in this area, this portion of the DOE site is uncontrolled (i.e., not fenced) and is susceptible to trespass. No other disturbances in the outlying areas were noted.

17.3.2 Follow-Up or Contingency Inspections

No follow-up or contingency inspections were required in 2003.

17.3.3 Routine Maintenance and Repairs

A damaged perimeter sign was replaced and noxious weeds were treated with herbicide in 2003.

17.3.4 Ground Water Monitoring

DOE does not monitor ground water at this site because there is no pre-existing contaminant plume at the disposal site, and the uppermost aquifer is not a current or potential source of drinking water due to low yield.

17.3.5 Corrective Action

Corrective action is action taken to correct out-of-compliance or hazardous conditions that create a potential health and safety problem or that may affect the integrity of the disposal cell or compliance with 40 CFR 192.

No corrective action was required in 2003.

17.3.6 Photographs

Table 17−2. Photographs Taken at the Slick Rock, Colorado, Disposal Site

Photograph Location Number	Azimuth	Description
PL–1	270	Sparse vegetation on the northeast slope of the regraded spoils pile.
PL–2	120	All-terrain vehicle tracks in the northwest corner of the property.

SRK 7/2003. PL–1. Sparse vegetation on the northeast slope of the regraded spoils pile.

SRK 7/2003. PL–2. All-terrain vehicle tracks in the northwest corner of the property.

End of current section